

## EFFECT OF ANTIBIOTIC IN PEPTIC ULCER THERAPY AGAINST *Lactobacillus* sp. ISOLATED FROM FERMENTED MILK PRODUCT : IN VITRO STUDY

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**Background.** The use of probiotics in conjunction with triple therapy in peptic ulcer disease may increase the eradication of *Helicobacter pylori*. But it raises the question about the effect of antibiotic in triple therapy on the probiotic itself. If probiotic bacteria can be inhibited by the antibiotics, it no longer has the effect on *H. pylori*. **Objectives.** To determine the Minimum Inhibitory Concentration (MIC) of amoxycillin and metronidazole which used in triple therapy against *Lactobacillus* sp. isolated from fermented milk product. **Method.** Isolation of *Lactobacillus* sp. performed by pour plate method. The isolate of *Lactobacillus* sp. identified by macroscopic, microscopic observations and biochemical test. Broth dilution method was conducted to test the MIC of amoxycillin and metronidazole. Concentration of amoxycillin used was 25 ppm; 12.5 ppm; 6.25 ppm; 3.12 ppm; 1.56 ppm; 0.78 ppm; 0.39 ppm; 0.19 ppm; and 0.095 ppm. While the concentration of metronidazole used was 5000 ppm; 2500 ppm; 1250 ppm; 625 ppm; 312.50 ppm; 156.25 ppm; 78.13 ppm; 39.06 ppm; 19.53 ppm and 9.77 ppm. **Result.** The MIC of amoxycillin against *Lactobacillus* sp. was 0.19 ppm and of metronidazole was 5000 ppm. **Conclusion.** Amoxycillin may inhibit *Lactobacillus* sp. at levels lower than amoxycillin peak plasma levels and therefore can not be used simultaneously. Whereas the MIC of metronidazole against *Lactobacillus* sp. was greater than metronidazole peak plasma levels so that can be used simultaneously.

**Key words:** antibiotic, peptic ulcer, *Lactobacillus* sp., Minimum Inhibitory Concentration